테이블 정보

-- 고객의 접근로그(행동로그) 테이블

CREATE TABLE "AwsDataCatalog"."ecommerce"."accesslog"(

ts timestamp COMMENT '고객이 방문한 시간',

product\_id int COMMENT '상품정보 테이블의 product\_id',

customer\_id int COMMENT '고객정보 테이블의 customer\_id',

order\_id int COMMENT '주문정보 테이블의 order\_id'

);

-- 상품정보 테이블

CREATE TABLE "rds"."ecommerce"."product" (

product\_id int NOT NULL AUTO\_INCREMENT COMMENT '상품정보 테이블의 PK컬럼',

name varchar(255) NOT NULL COMMENT '상품 이름',

price int NOT NULL COMMENT '상품 가격',

PRIMARY KEY (product\_id)

);

-- 고객정보 테이블

CREATE TABLE "rds"."ecommerce"."customer" (

customer\_id bigint NOT NULL AUTO\_INCREMENT COMMENT '고객정보 테이블의 PK컬럼',

name varchar(255) DEFAULT NULL COMMENT '고객의 이름',

PRIMARY KEY (customer\_id),

UNIQUE KEY username (username)

);

-- 주문정보 테이블

CREATE TABLE "rds"."ecommerce"."orders" (

order\_id int NOT NULL AUTO\_INCREMENT COMMENT '주문정보 테이블의 PK컬럼',

order\_cnt int NOT NULL COMMENT '주문 수량',

order\_price int NOT NULL COMMENT '주문 가격',

order\_dt timestamp NOT NULL COMMENT '주문일자, timestamp 타입의 컬럼, where 절 작성예씨 order\_dt >= CAST('2023-04-01' AS timestamp)',

customer\_id bigint NOT NULL COMMENT '고객정보 테이블의 customer\_id',

product\_id int NOT NULL COMMENT '상품 테이블의 product\_id',

PRIMARY KEY (order\_id),

KEY order\_prd\_id\_f3688dba\_fk\_product\_prd\_id (product\_id),

KEY order\_cust\_id\_a1158f81\_fk\_customer\_id (customer\_id),

KEY ix\_orders\_01 (promo\_id),

KEY ix\_orders\_02 (order\_dt),

CONSTRAINT order\_cust\_id\_a1158f81\_fk\_customer\_id FOREIGN KEY (customer\_id) REFERENCES customer (customer\_id),

CONSTRAINT order\_prd\_id\_f3688dba\_fk\_product\_prd\_id FOREIGN KEY (product\_id) REFERENCES product (product\_id)

);

SQL 작성 시 참고

### 현재 시간, 현재 timestamp

date\_add('hour', 9, current\_timestamp)

### 현재 시간에서 5분 전, 최근 5분간

date\_add('minute', -5, date\_add('hour', 9, current\_timestamp))

### 현재 시간에서 7일 전, 지난 일주일간

date\_add('day', -7, current\_timestamp + interval '9' hour)

### 어제

date\_add('day', -1, current\_timestamp + interval '9' hour)

# SQL 예시

### 질문 : 우리회사의 최근 5분 동안 총주문금액과 총주문수량을 분 단위로 알려줘

SQL :

SELECT

DATE\_FORMAT(order\_dt, '%Y-%m-%d %H:%i') AS order\_minute,

SUM(order\_price) AS total\_order\_price,

SUM(order\_cnt) AS total\_order\_cnt

FROM "rds"."ecommerce"."orders" AS orders

WHERE order\_dt >= date\_add('minute', -5, date\_add('hour', 9, current\_timestamp))

GROUP BY DATE\_FORMAT(order\_dt, '%Y-%m-%d %H:%i')

ORDER BY order\_minute DESC;

### 질문 : 우리회사의 최근 5분간 주문전환율 TOP5를 알려줘

SQL :

WITH MinMaxTimes AS (

SELECT

MIN(ts) AS min\_ts,

MAX(ts) AS max\_ts

FROM

"AwsDataCatalog"."ecommerce"."accesslog"

WHERE ts > date\_add('minute', -5, date\_add('hour', 9, current\_timestamp))

)

SELECT

p.product\_id,

p.name,

COALESCE(ra.view\_count, 0) AS view\_count,

COALESCE(ro.order\_count, 0) AS order\_count,

CASE

WHEN COALESCE(ra.view\_count, 0) > 0

THEN ROUND(COALESCE(ro.order\_count, 0) / CAST(COALESCE(ra.view\_count, 0) AS DOUBLE) \* 100, 2)

ELSE 0

END AS conversion\_rate

FROM

"rds"."ecommerce"."product" p

CROSS JOIN

MinMaxTimes mmt

LEFT JOIN (

SELECT

product\_id,

COUNT(\*) AS view\_count

FROM

"AwsDataCatalog"."ecommerce"."accesslog",

MinMaxTimes mmt

WHERE ts BETWEEN mmt.min\_ts AND mmt.max\_ts

GROUP BY

product\_id

) ra ON p.product\_id = ra.product\_id

LEFT JOIN (

SELECT

product\_id,

COUNT(\*) AS order\_count

FROM

"rds"."ecommerce"."orders",

MinMaxTimes mmt

WHERE

order\_dt BETWEEN mmt.min\_ts AND mmt.max\_ts

GROUP BY

product\_id

) ro ON p.product\_id = ro.product\_id

ORDER BY

conversion\_rate DESC

LIMIT 5;

### 질문 : 우리회사의 상품 별 주문 금액 top 5를 알려줘

SELECT

p.name,

SUM(o.order\_price) AS total\_order\_price

FROM

"rds"."ecommerce"."orders" o

JOIN

"rds"."ecommerce"."product" p ON o.product\_id = p.product\_id

GROUP BY

p.name

ORDER BY

total\_order\_price DESC

LIMIT 5;